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Subject: Diamond Alkali Phase I and SJRWP
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Hello Gary and Donn-

I have a couple of questions that I hope you can answer:

1. Can you tell me if Diamond Alkali Phase I removal of 40,000 CY of dioxin-laden material up on the Passaic in Newark, NJ has succeeded in protecting human health and the environment? I see that Phase II will remove another 160,000 CY. Seems to have a lot of similarities to SJRWP... Here is a video with EPA Region 2's Walter Mugdan explaining the cleanup: <https://www.youtube.com/watch?v=cDnWa8v8xpc>
2. Gary - can you confirm what you told me on March 11th, that the dioxin under this cap will have no appreciable breakdown? I was wondering if the 500-year risk calculation figure in the Corps 3rd party review is even enough time for these toxins to breakdown? So, if I say that this stuff could last "forever", would I would be correct?

And I have some thoughts about protecting the the bay and some additional questions:

To me, going 500 years into the future, to the Year 2516, is already "forever." That is at least 20 more generations of bay fishermen and crabbers that need a man-made cap to work to keep them safe... In a location that is not a "low energy environment" in a "protected harbor" or "low flow stream" as EPA guidance recommends for in-situ subaqueous containment.

Or go back 500 years to the Year 1516. Would a person standing on the banks of the San Jacinto River in 1516 know what the river would like like in the Year 2016? For that matter, would a person standing on the banks of the San Jacitno in 1965 know what the river would look like in 1975, 1985, 1995, 2015 or today? The answer to those two questions is a resounding "no."

What other changes will mankind induce on this river, and a potential underwater permanent toxic waste containment site, beyond just the natural changes that will surely occur? Rivers will change course, land will sink, the sea and estuarine rivers will rise, and the climate will change. Many, if not all, of those things have already happened in this reach of the San Jacinto since the day that MIMC decided to open up a toxic waste site on the edge of a major river for business.

When the PRPs designed and built the temporary cap, and said it would eliminate all exposure pathways by its very nature and that it would withstand a 100-year flood, I will take them at their word that they believed that to be the case. But we can see that it has failed to meet those standards in it's short 4.5 year lifetime in the form of holes/gaps/caps/erosion. Especially troubling is the hole in the NW quadrant where there is no liner to protect the biota/food web from the 43,700 ppt concentration sediments/waste. I am sure PRPs believed in the temporary cap integrity as much as those who designed and built the I-35 bridge over the Mississippi River in Minneapolis, or those who have built dams that have failed, or those who designed the Titanic and said it was unsinkable. That is the nature of human endeavors and engineering; we are not humble enough to know our engineering limitations.

So, can the PRPs guarantee that a permanent cap can be engineered to protect us during a



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500-year flood or 100-year hurricane over a 500 year time frame? What will the risk of containment in this location be over 500 years? Can we even begin to run a reliable risk analysis for that long of a period?

What we do know is that if the wastes are removed from the SJRWP in a responsible manner, then risks to fishermen and crabbers from its dioxin can begin to go to zero as the dioxin that was released from the mid-60s and onward starts to work itself out of the sediments and food chain. As with the pesticide (chlordane, DDT, etc.) advisory that was recently rescinded for these waters, perhaps we could have another feel good story and dioxin can be eventually removed as a contaminant of concern. That only happened because the sources of those pesticides were removed through bans; none of it was contained under subaqueous caps where it could remain a threat... This dioxin will remain a true threat until it is removed once and for all. If it sits under a cap, we are asking for trouble in the future.

Thanks-
Scott